

**DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**MRAM ARCHITECTURES FOR INCREASED WRITE SELECTIVITY**

The specification of which

(check one)    is attached hereto  
  X   was filed on July 18, 2000 as  
 Application Serial No. 09/618,504  
 and was amended on \_\_\_\_\_  
 (if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).\*

I hereby claim foreign priority benefits under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
(Number)	(Country)	(Day/Month/Year Filed)	Yes	No

I hereby claim the benefit under Title 35, United States Code §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Application Serial No.)	(Filing Date)	(Status)	(patented, pending, abandoned)
--------------------------	---------------	----------	--------------------------------

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: KRIS T. FREDRICK (Reg. No. 42,554) JOHN G. SHUDY, JR. (Reg. No. 31,214), IAN D. MACKINNON (Reg. No. 34,660). Address all telephone calls to KRIS T. FREDRICK at telephone number (612) 951-6029.

Address all correspondence to Kris T. Fredrick, Customer Number 000128

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COPY 8

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Sole  
or First Inventor Shaoping Li  
Inventor's Signature *Shaoping Li* Date 11/14, 2010 (Li)  
Residence ~~Plymouth, Hennepin County, Minnesota~~ Naperville, Will County, Illinois  
Citizenship China  
Post Office Address ~~3641 Lancaster Lane N. #205~~ 2620 Partlow Dr.  
~~Plymouth, MN 55441~~ Naperville, IL 60564

Full Name of Sole  
or First Inventor Theodore Zhu  
Inventor's Signature *Theodore Zhu* Date Oct 13, 2010  
Residence Maple Grove, Hennepin County, Minnesota  
Citizenship USA  
Post Office Address 6257 Quantico Lane  
Maple Grove, MN 55311

Full Name of Sole  
or First Inventor Anthony S. Arrott  
Inventor's Signature *Anthony S. Arrott* Date           , 2010  
Residence Washington, D.C., District of Columbia  
Citizenship USA  
Post Office Address 5026 Reno Road  
Washington, DC 20008

Full Name of Sole  
or First Inventor Harry Liu  
Inventor's Signature *Harry Liu* Date 11/13, 2010  
Residence Plymouth, Hennepin County, Minnesota  
Citizenship USA  
Post Office Address 18915 39<sup>th</sup> Ave. N.  
Plymouth, MN 55446

Full Name of Sole  
or First Inventor

Inventor's Signature

William L. Larson

Date 10/16, 2000

Residence

Eden Prairie, Hennepin County, Minnesota

Citizenship

USA

Post Office Address

11719 Waterford Road

Eden Prairie, MN 55347

Full Name of Sole  
or First Inventor

Yong Lu

Inventor's Signature

Date 10/13, 2000

Residence

Plymouth, Hennepin County, Minnesota

Citizenship

Canada

Post Office Address

10860 55<sup>th</sup> Avenue North

Plymouth, MN 55442

\*Title 37, Code of Federal Regulations §1.56:

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

(1) prior art cited in search reports of a foreign patent office in a counterpart application, and

(2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

(i) Opposing an argument of unpatentability relied on by the Office, or

(ii) Asserting an argument of patentability.

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A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

(1) Each inventor named in the application;

(2) Each attorney or agent who prepares or prosecutes the application; and

(3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

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COPY



8  
1125562 KF  
UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

FEBRUARY 02, 2001

PTAS

HONEYWELL INTERNATIONAL INC.  
KRIS T. FREDRICK  
101 COLUMBIA ROAD  
P.O. BOX 2245  
MORRISTOWN, NJ 07962-2245



\*101536243A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 11/20/2000

REEL/FRAME: 011283/0195  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

LI, SHAOPING

DOC DATE: 11/14/2000

ASSIGNOR:

ZHU, THEODORE

DOC DATE: 10/13/2000

ASSIGNOR:

ARROTT, ANTHONY S.

DOC DATE: 10/23/2000

ASSIGNOR:

LIU, HARRY

DOC DATE: 10/13/2000

ASSIGNOR:

LARSON, WILLIAM L.

DOC DATE: 10/16/2000

ASSIGNOR:

LU, YONG

DOC DATE: 10/13/2000

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FEB 13 2001

HONEYWELL LEGAL

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PATENT AND TRADEMARK  
OFFICE  
FEB 13 2001  
101

011283/0195 PAGE 2

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ASSIGNEE:

HONEYWELL INC.

HONEYWELL INTERNATIONAL INC.

101 COLUMBIA ROAD - P.O. BOX 2245

MORRISTOWN, NEW JERSEY 07962-2245

SERIAL NUMBER: 09618504

PATENT NUMBER:

FILING DATE: 07/18/2000

ISSUE DATE:

SHAREILL COLES, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

12-70-2000

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11-2-00

FORM PTO-1595  
1-31-92

101536243

FORM COVER SHEET U.S. DEPARTMENT OF COMMERCE  
TS ONLY

Tab settings ⇨ ⇨ ⇨

B10-25562USV

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Shaoping Li, Theodore Zhu, Anthony S. Arrott;  
Harry Liu, William L. Larson, Yong LuAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other

Execution Date: 11/14/00, 10/13/00, 10/23/00, 10/16/00

## 2. Name and address of receiving party(ies):

Name: Honeywell Inc.

Internal Address: Honeywell International Inc.

Street Address: 101 Columbia Road

P.O. Box 2245

City: Morristown State: NJ ZIP: 07962-2245

Additional name(s) & address(es) attached? ☐ Yes ☒ No

## 4. Application number(s) or patent number(s): 09/618,504

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s) 09/618,504

B. Patent No. (s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Kris T. Fredrick

Internal Address: Honeywell International Inc.

Street Address: 101 Columbia Road,

P.O. Box 2245

City: Morristown State: NJ ZIP: 07962-2245

## 6. Total number of applications and patents involved:

1

## 7. Total fee (37 CFR 3.41) \$40.00

- ☐ Enclosed  
☒ Authorized to be charged to deposit account

## 8. Deposit account number:

01-1125

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3/01/2000 MTHAIL 00000314 011125 09618504  
FC:581 40.00 CH

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Kris T. Fredrick

Name of Person Signing

Signature

Date

11-15-00

Total number of pages of attached conveyance document (including attachments):

4

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JOINT  
PATENT

FILE NO. B10-25562US

ASSIGNMENT

WHEREAS, SHAOPING LI of NAPERVILLE, County of WILL, and State of ILLINOIS, THEODORE ZHU of MAPLE GROVE, County of HENNEPIN, and State of MINNESOTA, ANTHONY S. ARROTT of WASHINGTON, D.C. DISTRICT OF COLUMBIA, HARRY LIU of PLYMOUTH, County of HENNEPIN, and State of MINNESOTA, WILLIAM L. LARSON of EDEN PRAIRIE, County of HENNEPIN, and State of MINNESOTA and YONG LU of PLYMOUTH, County of HENNEPIN, and State of MINNESOTA have invented certain new and useful improvements in MRAM ARCHITECTURES FOR INCREASED WRITE SELECTIVITY for which an application is about to be made for Letters Patent of the United States, said application having been executed on the 14th day of Nov., 2000, the 13th day of Oct, 2000, the 23rd day of Oct., 2000, 13th day of Oct, 2000, 16th day of Oct., 2000, 13th day of Oct., 2000, and

Whereas, Honeywell International Inc., a corporation organized and existing under the laws of the State of Delaware, and having its principal offices at 101 Columbia Road, P.O. Box 2245, Morristown, NJ 07962-2245 U.S.A. is desirous of acquiring the entire right, title and interest in and to said invention, said application and in, to and under any and all Letters Patent to be obtained therefor;

Now, therefore, for good and valuable consideration to us paid by the said Honeywell International Inc., the receipt of which is hereby acknowledged, we have sold, assigned and transferred, and by these presents do hereby sell, assign and transfer unto the said Honeywell International Inc., its successors and assigns, our entire right, title and interest in and to said invention, said application and the Letters Patent, both foreign and domestic, that may or shall issue, including all of our rights under any and all international conventions, treaties and/or agreements concerning patents to which the United States is a party, and we do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to the above mentioned assignee in accordance herewith.

We further authorize said assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of said United States application and/or otherwise take advantage of the provisions of any international convention, treaty and/or agreement.

We do hereby covenant and agree with the said assignee, its successors and assigns, that we will not execute any writing or do any act whatsoever conflicting with these presents, and that we or our executors or administrators will at any time upon request, without further or additional consideration, but at the expense of the said assignee, its successors and assigns, execute such additional writings and do such additional acts as said assignee, its successors and assigns, may deem necessary or desirable to perfect the assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, or any of and all foreign countries on said invention, and in enforcing any rights, occurring as a result of such applications or patents, by giving testimony in any proceedings or transactions involving such applications or patents.



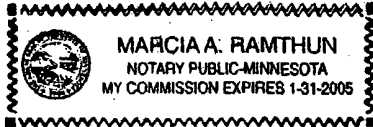
COPY

Date NOVEMBER 14, 2000

Shaop Li  
SHAOPING LI

State of MINNESOTA)  
County of DAKOTA) ss.

On this 14 day of NOVEMBER, 2000, before me personally appeared SHAOPING LI, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.



Marcia A. Ramthun  
Notary Public, County DAKOTA  
State of MINNESOTA  
My Commission Expires 1-31-2005

Date October 13, 2000

Theodore Zhu  
THEODORE ZHU

State of Minnesota)  
County of Hennepin) ss.

On this 13th day of October, 2000, before me personally appeared THEODORE ZHU, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.



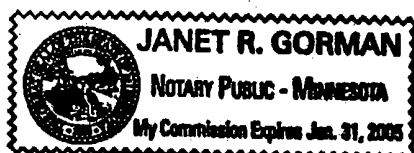
Janet R. Gorman  
Notary Public, County Hennepin  
State of Minnesota  
My Commission Expires 1-31-2005

Date 10/23, 2000

Anthony S. Arrott  
ANTHONY S. ARROTT

State of Minnesota)  
County of Hennepin) ss.

On this 23rd day of October, 2000, before me personally appeared ANTHONY S. ARROTT, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.



Janet R. Gorman  
Notary Public, County Hennepin  
State of Minnesota  
My Commission Expires Jan. 31, 2005

Date October 13, 2000

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HARRY LIU

State of Minnesota  
County of Hennepin )ss.

On this 13<sup>th</sup> day of October, 2000, before me personally appeared HARRY LIU, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.



Janet R. Gorman  
Notary Public, - County Hennepin  
State of Minnesota  
My Commission Expires 1-31-2005

Date Oct. 16, 2000

State of Minnesota  
County of Hennepin )ss.

On this 16<sup>th</sup> day of October, 2000, before me personally appeared WILLIAM L. LARSON, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.



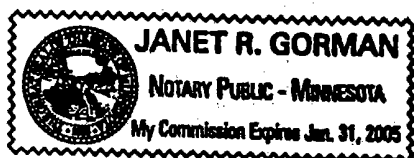
William L. Larson  
WILLIAM L. LARSON

Colleen Sue Dupont  
Notary Public, - County Hennepin  
State of Minnesota  
My Commission Expires Jan. 31, 2005

Date 10 / 13, 2000

State of Minnesota  
County of Hennepin )ss.

On this 13<sup>th</sup> day of October, 2000, before me personally appeared YONG LU, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.



Janet R. Gorman  
Notary Public, - County Hennepin  
State of Minnesota  
My Commission Expires 1-31-2005

Doc:Assign-J



UNITED STATES  
PATENT AND  
TRADEMARK OFFICE

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ASA-MSO

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MAY 29, 2002

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KNOBBE, MARTENS, OLSON & BEAR, LLP  
ADEEL S. AKHTAR  
620 NEWPORT CENTER DRIVE  
SIXTEENTH FLOOR  
NEWPORT BEACH, CA 92660

Chief Information Officer  
Washington, DC 20231  
www.uspto.gov



\*102101707A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 09/28/2001

REEL/FRAME: 012735/0417  
NUMBER OF PAGES: 8

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

HONEYWELL INTERNATIONAL, INC.

DOC DATE: 12/18/2000

ASSIGNEE:

MICRON TECHNOLOGY, INC.  
8000 SOUTH FEDERAL WAY  
P.O. BOX 6  
BOISE, IDAHO 83707-0006

SERIAL NUMBER: 09318073  
PATENT NUMBER:

FILING DATE: 05/25/1999  
ISSUE DATE:

SERIAL NUMBER: 09618237  
PATENT NUMBER:

FILING DATE: 07/18/2000  
ISSUE DATE:

SERIAL NUMBER: 09618256  
PATENT NUMBER: 6396733

FILING DATE: 07/17/2000  
ISSUE DATE: 05/28/2002

SERIAL NUMBER: 09618492  
PATENT NUMBER:

FILING DATE: 07/18/2000  
ISSUE DATE:

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012735 0417 PAGE 2

SERIAL NUMBER: 09618504 /  
PATENT NUMBER:

FILING DATE: 07/18/2000 /  
ISSUE DATE:

SERIAL NUMBER: 09638415  
PATENT NUMBER: 6363007

FILING DATE: 08/14/2000  
ISSUE DATE: 03/26/2002

SERIAL NUMBER: 09638419  
PATENT NUMBER: 6392922

FILING DATE: 08/14/2000  
ISSUE DATE: 05/21/2002

SERIAL NUMBER: 09638637  
PATENT NUMBER:

FILING DATE: 08/14/2000  
ISSUE DATE:

SERIAL NUMBER: 09668922  
PATENT NUMBER:

FILING DATE: 09/25/2000  
ISSUE DATE:

SERIAL NUMBER: 08962512  
PATENT NUMBER: 5939772

FILING DATE: 10/31/1997  
ISSUE DATE: 08/17/1999

SERIAL NUMBER: 08993009  
PATENT NUMBER: 5956267

FILING DATE: 12/18/1997  
ISSUE DATE: 09/21/1999

SERIAL NUMBER: 08962518  
PATENT NUMBER: 5982658

FILING DATE: 10/31/1997  
ISSUE DATE: 11/09/1999

SERIAL NUMBER: 08940587  
PATENT NUMBER: 6027948

FILING DATE: 09/30/1997  
ISSUE DATE: 02/22/2000

SERIAL NUMBER: 08993005  
PATENT NUMBER: 6048739

FILING DATE: 12/18/1997  
ISSUE DATE: 04/11/2000

SERIAL NUMBER: 09365308  
PATENT NUMBER: 6134138

FILING DATE: 07/30/1999  
ISSUE DATE: 10/17/2000

SERIAL NUMBER: 09396189  
PATENT NUMBER: 6147922

FILING DATE: 09/14/1999  
ISSUE DATE: 11/14/2000

SERIAL NUMBER: 09429664  
PATENT NUMBER: 6175525

FILING DATE: 10/28/1999  
ISSUE DATE: 01/16/2001

SERIAL NUMBER: 09455850  
PATENT NUMBER: 6178111

FILING DATE: 12/07/1999  
ISSUE DATE: 01/23/2001

SERIAL NUMBER: 09059871  
PATENT NUMBER: 6269027

FILING DATE: 04/14/1998  
ISSUE DATE: 07/31/2001

SERIAL NUMBER: 06879679  
PATENT NUMBER: 4731757

FILING DATE: 06/27/1986  
ISSUE DATE: 03/15/1988

SERIAL NUMBER: 06908075  
PATENT NUMBER: 4751677

FILING DATE: 09/16/1986  
ISSUE DATE: 06/14/1988

SERIAL NUMBER: 07008211  
PATENT NUMBER: 4754431

FILING DATE: 01/28/1987  
ISSUE DATE: 06/28/1988

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0127350417 PAGE 3

SERIAL NUMBER: 06870068  
PATENT NUMBER: 4780848

FILING DATE: 06/03/1986  
ISSUE DATE: 10/25/1988

SERIAL NUMBER: 07078612  
PATENT NUMBER: 4829476

FILING DATE: 07/28/1987  
ISSUE DATE: 05/09/1989

SERIAL NUMBER: 07168293  
PATENT NUMBER: 4897288

FILING DATE: 03/15/1988  
ISSUE DATE: 01/30/1990

SERIAL NUMBER: 07161534  
PATENT NUMBER: 4918655

FILING DATE: 02/29/1988  
ISSUE DATE: 04/17/1990

SERIAL NUMBER: 07404003  
PATENT NUMBER: 4953002

FILING DATE: 09/05/1989  
ISSUE DATE: 08/28/1990

SERIAL NUMBER: 07504777  
PATENT NUMBER: 5012444

FILING DATE: 04/04/1990  
ISSUE DATE: 04/30/1991

SERIAL NUMBER: 07505090  
PATENT NUMBER: 5060193

FILING DATE: 04/04/1990  
ISSUE DATE: 10/22/1991

SERIAL NUMBER: 07507682  
PATENT NUMBER: 5064499

FILING DATE: 04/09/1990  
ISSUE DATE: 11/12/1991

SERIAL NUMBER: 08061603  
PATENT NUMBER: 5349302

FILING DATE: 05/13/1993  
ISSUE DATE: 09/20/1994

SERIAL NUMBER: 08365852  
PATENT NUMBER: 5496759

FILING DATE: 12/29/1994  
ISSUE DATE: 03/05/1996

SERIAL NUMBER: 08576279  
PATENT NUMBER: 5569617

FILING DATE: 12/21/1995  
ISSUE DATE: 10/29/1996

SERIAL NUMBER: 08576732  
PATENT NUMBER: 5756366

FILING DATE: 12/21/1995  
ISSUE DATE: 05/26/1998

SHARON BROOKS, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

Client Code: MICRON.173GEN

05-28-2002

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9/28/01

TO THE ASSISTANT COMMISSIONER FOR PATENTS

102101707

documents or copy thereof.

1. Name of conveying party(ies): (If multiple assignors, list numerically)

Honeywell International, Inc.

Additional name(s) of conveying party(ies) attached?

( ) Yes (X) No

2. Name and address of receiving party(ies):

Name: Micron Technology, Inc.

Internal Address: P.O. Box 6

Street Address: 8000 South Federal Way

City: Boise State: Idaho ZIP: 83707-0006

Additional name(s) of receiving party(ies) attached?

( ) Yes (X) No

3. Nature of conveyance:

(x) Assignment - Nunc Pro Tunc

( ) Merger

( ) Security Agreement

( ) Change of Name

( ) Other:

Execution Date: (If multiple assignors, list execution dates in numerical order corresponding to numbers indicated in 1 above) December 18, 2000

4. Application number(s) or Patent number(s):

( ) Application(s) filed herewith Execution Date(s):

(x) Patent Application No.: See ATTACHMENT A  
Filing Date: See ATTACHMENT A

(x) Patent No.: See ATTACHMENT B  
Issue Date: See ATTACHMENT B

Additional numbers attached? ( ) Yes (X) No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Adeel S. Akhtar

KNOBBE, MARTENS, OLSON & BEAR, LLP

Customer No. 20,995

Internal Address: Sixteenth Floor

Street Address: 620 Newport Center Drive

City: Newport Beach State: CA ZIP: 92660

Attorney's Docket No.: MICRON.173GEN

7. Total fee (37 CFR 1.21(h)): \$1,360

(X) Enclosed

( ) Authorized to be charged to deposit account

8. Deposit account number: 11-1410

Please charge this account for any additional fees which may be required, or credit any overpayment to this account.

6. Total number of applications and patents involved: 34

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct, and any attached copy is a true copy of the original document.

Adeel S. Akhtar

Name of Person Signing

Signature

Date

Registration No. 41,394

Total number of pages including cover sheet, attachments and document: 8

Mail documents to be recorded with required cover sheet information to:

01/2001 JFALLAH2 00000010 09318073

FC:581

1360.00 00

U.S. Patent and Trademark Office

Attn: Assignment Division

Crystal Gateway-4

1213 Jefferson Davis Highway, Suite 320

Arlington, VA 22202

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**ATTACHMENT A**  
**PENDING PATENTS**

Serial No.	Filing Date	Title	Former Docket No.	Docket No. (Client No.)
09/318,073	5/25/99	Local Shielding for Memory Cells	25561	MICRON.196CP1
09/618,237	7/18/00	Magneto-Resistive Memory Array	26090	MICRON.211A
09/618,256	7/17/00	Magneto-Resistive Memory Having Sense Amplifier with Offset Control	26310	MICRON.210A
09/618,492	7/18/00	Memory Redundancy with programmable Non-Volatile Control	26083	MICRON.212A
09/618,504	7/18/00	MRAM Architectures for Increased Write Selectivity	25562	MICRON.198A
09/638,415	8/14/00	Magneto-Resistive Memory with Shared Wordline and Sense Line	26091	MICRON.213A
09/638,419	8/14/00	Passivated Magneto-Resistive Bit Structure and Passivation Method Therefor	25637	MICRON.214A
09/638,637	8/14/00	Pulsed Write Techniques for Magneto-Resistive Memories	26025	MICRON.215A
09/668,922	9/25/00	Shielding Arrangement to Protect A Circuit From Stray Magnetic Fields	26347	MICRON.216A

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Patent No.	Issue Date	Title	Former Docket No.	Docket No. (Client No.)
5,939,772	8/17/99	Shielded Package for Magnetic Devices	17179	MICRON.197A
5,956,267	9/21/99	Self-Aligned Wordline Keeper and Method of Manufacture Therefor	17079	MICRON.196A formerly 201A
5,982,658	11/9/99	MRAM Design to Reduce Dissimilar Nearest Neighbor Effects	16578	MICRON.208A
6,027,948	2/22/00	Method to Permit high Temperature Assembly Processes for Magnetically Sensitive Devices	17037	MICRON.207A
6,048,739	4/11/00	Method of Manufacturing a High Density Magnetic Memory Device	17078	MICRON.209A
6,134,138	10/17/00	Method and Apparatus for Reading a Magnetoresistive Memory	25598	MICRON.206A
6,147,922	11/14/00	Non-Volatile Storage Latch	17156A1	MICRON.185DV1
6,175,525	1/16/01	Non-Volatile Storage Latch	17156B1	MICRON.185CP1
6,178,111	1/23/01	Method and Apparatus for Writing Data States to Non-Volatile Storage Devices	25563	MICRON.199A
6,269,027	7/31/01	Non-Volatile Storage Latch	17156/25629	MICRON.185A



**ATTACHMENT B  
ISSUED PATENTS**

**COPY**

Patent No.	Issue Date	Title	Former Docket No.	Docket No. (Client No.)
4,731,757	3/15/88	Magnetoresistive Memory Including Thin Film Storage Cells Having Tapered Ends	10790	MICRON.189A
4,751,677	6/14/88	Differential Arrangement Magnetic Memory Cell	11874	MICRON.187A
4,754,431	6/28/88	Vialess Shorting Bars for Magnetoresistive Devices	12062	MICRON.195A
4,780,848	10/25/88	Magnetoresistive Memory with Multi-Layer Storage Cells Having layers of Limited Thickness	10789	MICRON.188A
4,829,476	5/9/89	Differential Magnetoresistive Memory Sensing	12056	MICRON.186A
4,897,288	1/30/90	Vialess Shorting Bars for Magnetoresistive Devices	12724	MICRON.192DV1
4,918,655	4/17/90	Magnetic Device Integrated Circuit Interconnection System	12092	MICRON.194A
4,953,002	8/28/90	Semiconductor Device Housing with Magnetic Field Protection	12035	MICRON.203FW1
5,012,444	4/30/91	Opposed Field Magnetoresistive Memory Sensing	13117	MICRON.191A
5,060,193	10/22/91	Magnetic State Entry Assurance	13268	MICRON.190A
5,064,499	11/12/91	Inductively Sensed Magnetic Memory	12173	MICRON.193A
5,349,302	9/20/94	Sense Amplifier Input Stage for Single Array Memory	13490	MICRON.202A
5,496,759	3/5/96	Highly Productive Magnetoresistive RAM Process	15742	MICRON.204A
5,569,617	10/29/96	Integrated Spacer for Magnetoresistive RAM	16139	MICRON.205A
5,756,366	5/26/98	Magnetic hardening of Bit Edges of Magnetoresistive RAM	16251	MICRON.200A

COPY

NUNC PRO TUNC ASSIGNMENT

Effective as of December 18, 2000, Honeywell International Inc., a Delaware corporation, acting through its Solid State Electronics Center having a principal place of business at 12001 State Hwy 55, Plymouth, Minnesota, and Honeywell Intellectual Properties Inc., an Arizona corporation having a principal place of business at 8440 South Hardy Dr., Tempe, Arizona (collectively referred to as "Honeywell") hereby make the following assignments for good and valuable consideration to Micron Technology Inc., a Delaware corporation having a principal place of business at 8000 S. Federal Way, Boise, Idaho: all right, title, and interest in the patents and patent applications listed in Appendix A and any of their related continuation, continuation-in-part, divisional or reissue applications or patents and any foreign counterpart applications or patents which now exist or which may later exist.

MICRON TECHNOLOGY, INC.

Signature: [Signature]Printed Name: Michael L. CypertTitle: Chief Patent Counsel

HONEYWELL INTERNATIONAL, INC.

Signature: [Signature]Printed Name: DAVID S. HORNERTitle: Chief Patent CounselHONEYWELL INTELLECTUAL  
PROPERTIES, INCSignature: [Signature]Printed Name: KENTH ADAMSTitle: DIRECTOR - LICENSING

# Appendix SCHEDULE A (2 pages)

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## SSEC MRAM Intellectual Property

Patent Number	Title	First Inventor	Issue Date	Countries
<b>Issued Patents</b>				
4,731,757	MAGNETIC MEMORY CONFIGURATION	HUANG, J.S.T.	3/15/88	Japan/US
4,751,677	HIGH SPEED MR MEMORY	DAUGHTON, J.M.	6/14/88	Japan/US
4,780,848	MAGNETORESISTIVE MEMORY WITH MULTI-LAYER STORAGE CELLS HAVING LAYERS OF LIMITED THICKNESS	DAUGHTON, J.M.	10/25/88	US/EP/Netherlands/Japan/Great Britain/Germany/France/Italy/Canada
4,829,476	A DIFFERENTIAL CIRCUIT ARCHITECTURE FOR A MAGNETO-RESISTIVE MEMORY	HANAWALT, R.E.	5/9/1989	US
4,897,288	VIALESS SHORTING BARS FOR MAGNETORESISTIVE DEVICES	JENSON, M.L.	1/30/90	US
4,918,655	COMPOSITE IC METALLURGY AND MAGNETIC SANDWICH FOR INTERCONNECTIONS	DAUGHTON, J.M.	4/17/90	US/Netherlands/Japan/Germany/Great Britain/France/Canada/EP
5,012,444	OPPOSED FIELD MAGNETORESISTIVE MEMORY SENSING	HURST, Allan T.	4/30/91	US/Netherlands/Japan/Germany/Great Britain/France/Canada/EP
5,060,193	MAGNETIC STATE ENTRY ASSURANCE	DAUGHTON, J.M.	10/22/91	US/Netherlands/Japan/Germany/Great Britain/France/Canada/EP
5,064,499	INDUCTIVELY SENSED MAGNETIC MEMORY MANUFACTURING METHOD (AS AMENDED)	FRYER, R.B.	11/12/91	US
5,349,302	SENSE AMPLIFIER INPUT STAGE FOR SINGLE ARRAY MEMORY	COOPER, L.K.	9/20/94	US
5,496,759	HIGHLY PRODUCIBLE MRAM PROCESS	CHEN, H.J.	3/5/96	US
5,569,617	INTEGRATED SPACER FOR MAGNETORESISTIVE RAM	BERG, Lonny L.	10/23/96	USA/PCT
5,758,366	MAGNETIC HARDENING OF BIT EDGES OF MAGNETORESISTIVE RAM	BERG, Lonny L.	5/26/98	USA/PCT
5,956,267	SELF-ALIGNED WORDLINE KEEPER AND METHOD OF MANUFACTURE THEREFOR	HURST, A.	9/21/99	US
5,982,658	MRAM DESIGN TO REDUCE DISSIMILAR NEAREST NEIGHBOR EFFECTS	BERG, Lonny L.	11/9/99	US
6,027,948	METHOD AND APPARATUS TO PERMIT HIGH TEMPERATURE ASSEMBLY PROCESSES FOR MAGNETICALLY SENSITIVE DEVICES	HURST, A.	2/2/00	US
6,048,739	METHOD OF MANUFACTURING A HIGH DENSITY MAGNETIC MEMORY DEVICE	HURST, Allan T.	4/11/00	US
4,953,002	SEMICONDUCTOR DEVICE HOUSING WITH MAGNETIC FIELD PROTECTION	KAWAI, T.	8/28/90	US
4,754,431	VIALESS SHORTING BARS FOR MAGNETORESISTIVE DEVICES	JENSON, M.L.	6/28/88	US/EP/Netherlands/Japan/Great Britain/Germany/France
5,939,772	SHIELDED PACKAGE FOR MAGNETIC DEVICES	HURST, Allan T.	8/17/99	US

## Pending Patent Applications

Docket Number	Title	First Inventor	Filing Date	Countries
25561	LOCAL SHIELDING FOR MEMORY CELLS	SATHER, Jeffrey Scott	5/25/99	US/PCT/Taiwan
25562	MRAM ARCHITECTURES FOR INCREASED WRITE SELECTIVITY	ARROTT, Anthony S.	7/18/00	US
25563	METHOD AND APPARATUS FOR WRITING DATA STATES TO NON-VOLATILE STORAGE DEVICES	LU, Yong	12/7/99	US

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25588	METHOD AND APPARATUS FOR READING A MAGNETORESISTIVE MEMORY	LU, Yong	7/30/99	US
26025	MAGNETO-RESISTIVE MEMORY WITH SHARE WORDLINE AND SENSE LINE	JOHNSON, William J.	8/14/00	US
26083	MEMORY REDUNDANCY WITH PROGRAMMABLE NON-VOLATILE CONTROL	KIRCHNER, Gary D.	7/18/00	US
26090	MAGNETOC-RESISTIVE MEMORY ARRAY	KATTI, Romney R.	7/18/00	US
26091	PULSED WRITE TECHNIQUES FOR MAGNETO-RESISTIVE MEMORIES	KATTI, Romney R.	8/14/00	US
26310	MAGNETO-RESISTIVE MEMORY HAVING SENSE AMPLIFIER WITH OFFSET CONTROL	DRIES, Michael Frederick	7/18/00	US
17156/25629	NON-VOLATILE STORAGE ELEMENT	GADBOIS, Jason B.	4/14/98	US
17156A1	NON-VOLATILE STORAGE ELEMENT	GADBOIS, Jason B.	8/14/99	US
17156B1	NON-VOLATILE STORAGE ELEMENT	GADBOIS, Jason B.	10/28/99	US
17156US	NON-VOLATILE STORAGE ELEMENT	GADBOIS, Jason B.	4/14/98	US/PCT
25637/26028	PASSIVATED MAGNETO-RESTRICTIVE BIT STRUCTURE AND PASSIVATION METHOD THEREFOR	BERG, Lonny L.	8/14/00	US

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MICRON.198A

MICRON.173GEN

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	MICRON TECHNOLOGY, INC.	)
			)
App. No.	:	listed below	)
			)
Filed	:	listed below	)
			)
For	:	listed below	)
			)
Examiner	:	Unknown	)

### ESTABLISHMENT OF RIGHT OF ASSIGNEE TO TAKE ACTION AND REVOCATION AND POWER OF ATTORNEY

United States Patent and Trademark Office  
P.O. Box 2327  
Arlington, VA 22202

Dear Sir:

The undersigned is empowered to act on behalf of the assignee below (the "Assignee") for the cases listed below. The original Assignment from Honeywell, Inc. to Micron Technology, Inc. is recorded at Reel 012188 and Frame 0697, and each of the listed cases was previously assigned of record to Honeywell, Inc.:

App. No.	Our Ref. No.	Title	Patent No.	Assignment Reel/Frame
09/318,073	MICRON.196CP1	Local Shielding For Memory Cells	PENDING	009993/0887
09/618,237	MICRON.211A	Magneto-Resistive Memory Array	PENDING	011267/0257
09/618,256	MICRON.210A	Magneto-Resistive Memory Having Sense Amplifier With Offset Control	PENDING	011430/0400
09/618,492	MICRON.212A	Memory Redundancy With Programmable Non-Volatile Control	PENDING	011377/0194
09/618,504	MICRON.198A	MRAM Architectures For Increased Write Selectivity	PENDING	012188/0697
09/638,415	MICRON.213A	Magneto-Resistive Memory With Shared Wordline And	PENDING	011189/0647

App. No. : listed below  
 Filed : listed below

COPY

App. No.	Our Ref. No.	Sense Line Title	Patent No.	Assignment Reel/Frame
09/638,419	MICRON.214A	Passivated Magneto-Resistive Bit Structure And Passivation Method Therefor	PENDING	011287/0078
09/638,637	MICRON.215A	Pulsed Write Techniques For Magneto-Resistive Memories	PENDING	011262/0993
09/668,922	MICRON.216A	Shielding Arrangement To Protect A Circuit From Stray Magnetic Fields	PENDING	011199/0931
08/962,512	MICRON.197A	Shielded Package For Magnetic Devices	5,939,772	9147/0852
08/993,009	MICRON.196A	Self-Aligned Wordline Keeper And Method Of Manufacture Therefor	5,956,267	8940/0969
08/962,518	MICRON.208A	MRAM Design To Reduce Dissimilar Nearest Neighbor Effects	5,982,658	9066/0083
08/940,587	MICRON.207A	Method To Permit High Temperature Assembly Processes For Magnetically Sensitive Devices	6,027,948	N/A
08/993,005	MICRON.209A	Method Of Manufacturing A High Density Magnetic Memory Device	6,048,739	8940/0979
09/365,308	MICRON.206A	Method And Apparatus For Reading A Magneto-Resistive Memory	6,134,138	010147/0942
09/396,189	MICRON.185DV1	Non-Volatile Storage Latch	6,147,922	9115/0907
09/429/664	MICRON.185CP1	Non-Volatile Storage Latch	6,175,525	010353/0253
09/455,850	MICRON.199A	Method And Apparatus For Writing Data States To Non-Volatile Storage Devices	6,178,111	010477/0485
09/059,871	MICRON.185A	Non-Volatile Storage Latch	6,269,027	9115/0907
06/879,679	MICRON.189A	Magneto-Resistive Memory Including Thin Film Storage Cells Having Tapered Ends	4,731,757	4574/0767
06/908,075	MICRON.187A	Differential Arrangement Magnetic Memory Cell	4,751,677	4604/0016
07/008,211	MICRON.195A	Vialess Shorting Bars For Magneto-Resistive Devices	4,754,431	4664/0251
06/870,068	MICRON.188A	Magneto-Resistive Memory With Multi-Layer Storage Cells Having Layer Of Limited	4,780,848	4559/0920

App. No. : listed below  
 Filed : listed below

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App. No.	Our Ref. No.	Thickness	Patent No.	Assignment Reel/Frame
07/078,612	MICRON.186A	Differential Magneto-Resistive Memory Sensing	4,829,476	4748/0535
07/168,293	MICRON.192DV1 MICRON.195DV1	Vialess Shorting Bars For Magneto-Resistive Devices	4,897,288	4664/0251
07/161,534	MICRON.194A	Magnetic Device Integrated Circuit Interconnection System	4,918,655	4838/0775
07/404,003	MICRON.203FW1	Semiconductor Device Housing With Magnetic Field Protection	4,953,002	4896/0504
07/504,777	MICRON.191A	Opposed Field Magneto- Resistive Memory Sensing	5,012,444	5269/0357
07/505,090	MICRON.190A	Magnetic State Entry Assurance	5,060,193	5275/0230
07/507,682	MICRON.193A	Inductively Sensed Magnetic Memory	5,064,499	5283/0794
08/061,603	MICRON.202A	Sense Amplifier Input Stage For Single Array Memory	5,349,302	6564/0073
08/365,852	MICRON.204A	Highly Produicable Magneto- Resistive RAM Process	5,496,759	7300/0805
08/576,279	MICRON.205A	Integrated Spacer For Magneto- Resistive RAM	5,569,617	7822/0914
08/576,732	MICRON.200A	Magnetic Hardening Of Bit Edges Of Magneto-Resistive RAM	5,756,366	7807/0166

The original assignment from Honeywell, Inc. to Micron Technology, Inc. is recorded at Reel 012188 and Frame 0697. These assignments represents the entire chain of title of these inventions from the Inventors to the Assignee.

I declare that all statements made herein are true, and that all statements made upon information and belief are believed to be true, and further, that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that willful, false statements may jeopardize the validity of the application, or any patent issuing thereon.

The undersigned hereby revokes any previous powers of attorney in the subject application, and hereby appoints the registrants of Knobbe, Martens, Olson & Bear, LLP, 620 Newport Center Drive, Sixteenth Floor, Newport Beach, California 92660, Telephone (949) 760-0404, Customer No. 20,995, and Michael L. Lynch, Reg. No. 30,871, Micron Technology, Inc., 8000 South Federal Way, P.O. Box 6, Boise, ID 83707-0006, as its attorneys

App. No. : listed below  
Filed : listed below

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with full power of substitution and revocation to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected herewith. This appointment is to be to the exclusion of the inventor(s) and his attorney(s) in accordance with the provisions of 37 C.F.R. § 3.71.

Please use **Customer No. 20,995** for all communications.

MICRON TECHNOLOGY, INC.

Dated: February 28, 2002

By: Roderic Lewis  
Roderic Lewis

Vice President of Legal Affairs,  
Title: General Counsel and Corporate Secretary

Address: 8000 South Federal Way  
P.O. Box 6  
Boise, ID 83707-0006

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